

2 photoacid-labile groups, the polymer units being crosslinked by a separate crosslinker component, the crosslinker component being a vinyl ether prior to reaction with the polymer.

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### REMARKS

Claims 33 and 46 have been cancelled without prejudice, and claims 26 and 35 have been amended. No new matter has been added by virtue of the amendments. For instance, support for the amendments appears in the original claims of the application.

Claims 26-30, 32, 35-43 and 45 were rejected under 35 U.S.C. 102(e) over Lee et al. (U.S. Patent 6,200,731).

Claims 33-34 and 46 were rejected under 35 U.S.C. 103 over Lee et al. (U.S. Patent 6,200,731) in view of Takeda et al. (U.S. Patent 6,156,481).

Claims 47-48 were rejected under 35 U.S.C. 103 over Lee et al. (U.S. Patent 6,200,731) in view of Varanasi et al. (U.S. Patent 6,140,015).

For the sake of brevity, the three rejections are addressed in combination. Such a combined response is considered appropriate because, *inter alia*, each of the rejections relies on the Lee et al. document (U.S. Patent 6,200,731) as a primary citation. Each of the rejections is traversed.

The pending claims call for a positive photoresist composition that comprises a polymer crosslinked with a vinyl ether component. Such a vinyl-ether crosslinked linked polymer is a preferred aspect of the invention as discussed for instance at page 4, lines 21-24 and exemplified in the Examples of the application.

Such photoresist compositions are clearly not disclosed or otherwise suggested by the cited documents.

For instance, attention is directed to the Examples of the cited Lee patent, where a vinyl ether is not employed to form crosslinked polymer units.

Such deficiency of the Lee et al. citation was apparently recognized as former claims 33 and 46 (which claimed recited that the crosslinker component is a vinyl ether) were rejected over the combination of the Lee et al. patent and Takeda et al., rather than just the Lee et al. patent alone.

However, the Takeda et al. citation does not remedy such deficiencies of Lee et al. patent.

Among other things, Takeda et al. is directed to particular **phenolic polymers**. In distinction, Applicants' pending claims call a polymer that is substantially free of aromatic groups.

Takeda et al. is cited for reacting phenolic groups (i.e. -OH groups). The skilled worker, however, would not have any particular incentive to utilize a procedure involving phenolic moieties to with non-phenolic systems.

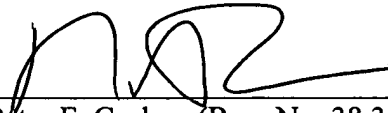
The Varansi et al. citation is similarly deficient and is specifically directed to particular phenolic polymers. Vinyl ether compounds are not mentioned, or other suggested in the Varansi et al. citation.

In view thereof, reconsideration and withdrawal of the rejections are requested.

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U.S.S.N. 09/780,989  
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It is believed the application is in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'P. Corless', written over a horizontal line.

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**MARKED VERSION TO SHOW CHANGES**

**IN THE CLAIMS**

26. (twice amended) A positive-acting photoresist composition comprising a photoactive component and a polymer that is substantially free of aromatic groups and comprises 1) units crosslinked to other polymer units and 2) photoacid-labile groups,

the polymer units being crosslinked by a separate crosslinker component, the crosslinker component being a vinyl ether prior to reaction with the polymer.

35. (twice amended) A method for forming a photoresist relief image, comprising:

a) applying a layer of a positive-acting photoresist composition on a substrate, the photoresist composition comprising a photoactive component and a polymer that is substantially free of aromatic groups and comprises 1) units crosslinked to other polymer units and 2) photoacid-labile groups, the polymer units being crosslinked by a separate corsslinker component, the crosslinker component being a vinyl ether prior to reaction with the polymer.